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Publication Title:

AN END-PIECE FOR THE FREE END OF A FLAG-POLE

Abstract:

Hollow flag-poles (1) of metal or plastic are provided with a hole at the upper end allowing a rope (11) to be located inside the flag-pole (1) with the exception of the end of the rope which is secured to the attachment at the top corner of a flag (13). The attachment at the lower corner of the flag (13) is connected by a weight (14) to a loop (15) around the flag-pole (1). The other end of the rope (11) is connected to a reeling unit (16) arranged inside the flag-pole (1) at a suitable level from the ground to be operated manually. The object of the invention is to eliminate the need for a hole to be made for the rope at the top end of the flag-pole (1) and to prevent a flag (12) from becoming entangled once it has been hoisted. This is achieved by the use of an end-piece consisting of two units (2 and 3) arranged one after the other and preferably pivotable in relation to each other, one unit (3) having an aperture (10) to receive a rope (11) in communication with a passage (5) arranged inside the two units (2 and 3) for the rope (11) coming from said aperture (10).

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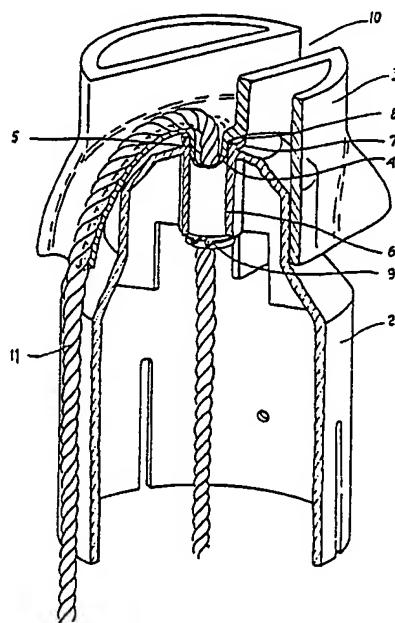
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(54) Title: AN END-PIECE FOR THE FREE END OF A FLAG-POLE

(57) Abstract

Hollow flag-poles (1) of metal or plastic are provided with a hole at the upper end allowing a rope (11) to be located inside the flag-pole (1) with the exception of the end of the rope which is secured to the attachment at the top corner of a flag (13). The attachment at the lower corner of the flag (13) is connected by a weight (14) to a loop (15) around the flag-pole (1). The other end of the rope (11) is connected to a reeling unit (16) arranged inside the flag-pole (1) at a suitable level from the ground to be operated manually. The object of the invention is to eliminate the need for a hole to be made for the rope at the top end of the flag-pole (1) and to prevent a flag (12) from becoming entangled once it has been hoisted. This is achieved by the use of an end-piece consisting of two units (2 and 3) arranged one after the other and preferably pivotable in relation to each other, one unit (3) having an aperture (10) to receive a rope (11) in communication with a passage (5) arranged inside the two units (2 and 3) for the rope (11) coming from said aperture (10).



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An end-piece for the free end of a flag-pole

A flag-pole in use has a sphere at the top and, close to the sphere, a guide means for a rope attached by one end to the upper attachment point of a flag and by the other end to the lower attachment point of a flag. When the flag is hoisted the lower end of the rope is anchored to a cleat.

5 This method of hoisting a flag is perfectly satisfactory in most instances. However, it is impossible to prevent damage to flag-poles, particularly in public places. To solve this problem, one end of the rope is attached to the top attachment point on a flag and the rope then runs inside the actual flag-pole. The flag-pole may have a hole drilled in it for this purpose or it may be in the form of a pipe. Inside the flag-pole is a unit for winding and unwinding the rope, this being at a suitable level to be operated manually by a person standing on the ground. A weight and a loop encompassing the flag-pole are attached to the lower attachment point of the flag. An arrangement of the above-mentioned type

10 makes it impossible to lower a flag which has been hoisted. It is complicated to drill a transverse hole to prove communication with the axial hole in the flag-pole. Furthermore, the transverse hole must be provided with suitable sliding means to prevent the rope from becoming worn upon passage through the hole.

20 The object of the present invention is to produce an end-piece enabling the end of a rope to be passed to the longitudinal hollow of the flag-pole without having to make a transverse hole in the upper end of the flag-pole. This is achieved in that the end-piece consists of two units arranged one after the other and joined together. One unit is designed for attachment to the upper end of the flag-pole. The other unit has a transverse aperture leading to a passage running through both the units.

The two units are joined together by means of a hollow shaft and a bearing consisting of a hole. The shaft is connected to one of the two units and the bearing to the other. The bearing may consist of a pipe.

30 Since the connection between the two units consists of a hollow shaft and a bearing, the two units may be pivotable in relation to each other.

The two units are so arranged as to prevent relative movement in axial direction.

The second unit may be in the form of a sphere or may be such that a sphere can be attached thereto.

5 Additional features of the present invention are revealed in the following claims.

The invention will be described in more detail with reference to the accompanying drawings, in which

Figure 1 shows an end-piece in accordance with the present invention,

10 Figure 2 shows part of the end-piece in section and

Figure 3 shows a flag and flag-pole.

At the top end of the flag-pole 1 is a unit 2, substantially in the form of a sleeve. This may be attached to the end of the flag-pole by means of a shrink fit or by suitable screw or nut joints. At the top of the unit 2 is

15 a bearing 6 in the form of a cylinder. The upper end of the unit 2 is provided with a contact surface 7. The second unit 3 is provided at its lower end with a hollow shaft 4. The shaft 4 is provided at the top with a peripheral shoulder 8 for cooperation with the contact surface 7. At its

20 lower end the shaft 4 is provided with a locking ring 9 or some other member to prevent axial movement of the second unit 3 in relation to the unit 2. A transverse hole 10 is provided in the second unit and communi-

cates with the through-passage formed by the shaft 4 and upper part of the unit 2. The bearing 6 and shaft 4 may be so arranged in relation to each other that the parts 2 and 3 are unable to rotate in relation to each 25 other. However, it is preferable for the two parts 2 and 3 to be pivot-

able in relation to each other. The second unit 3 is provided with an attachment pin 17 for a decorative sphere 12. A rope 11 is passed through the hole 10 and passage 5, running from a reeling unit 16 at the lower end of the flag-pole. This unit is enclosed in order to prevent damage. The 30 other end of the rope 11 is attached to the attachment point at the top corner of a flag 13. The lower corner of the flag 13 is provided with an

attachment point from which is suspended a weight 14 with a loop 15 encompassing the flag-pole 1.

Thanks to the unit 2, the end-piece according to the invention need only be fitted over the end of the flag-pole 1 and secured thereto by a screw joint or shrinking. The end-piece is thus extremely simple to apply and eliminates the need for a transverse hole in the upper end of the flag-pole.

The units 2 and 3 being pivotable in relation to each other offers the advantage that the upper part will rotate with the movement of the flag about the geometric axis of the flag-pole, thus eliminating the risk of it becoming twisted when blown by the wind.

CLAIMS

1. An end-piece such as a sphere for the free end of a flag-pole, characterised in that said piece consists of two units (2 and 3) arranged one after the other and joined together, said units preferably being pivotable about the same geometric axis, that one unit (2) is designed for attachment to the flag-pole (1), that the other unit (3) has an aperture (10) to receive a rope (11) and that both units (2 and 3) are so shaped as to produce an internal passage (5) in communication with said aperture (10).
5
2. An end-piece according to claim 1, characterised in that said first unit (2) is in the form of a sleeve to be passed over the free end of a flag-pole (1) and attached thereto by means of a shrink-fit or a nut or screw joint or the like.
10
3. An end-piece according to claim 1, characterised in that the two units (2 and 3) are joined together by means of a hollow shaft constituting said passage (5) and a bearing (6) therefor, like the inner surface of a cylinder, the shaft (4) being arranged on one of the two units (2 and 3) and the bearing (6) on the other of said units.
15
4. An end-piece according to claim 3, characterised in that means (7 and 9) are arranged to prevent relative movement in axial direction between the two units (2 and 3).
20

FIG. 1

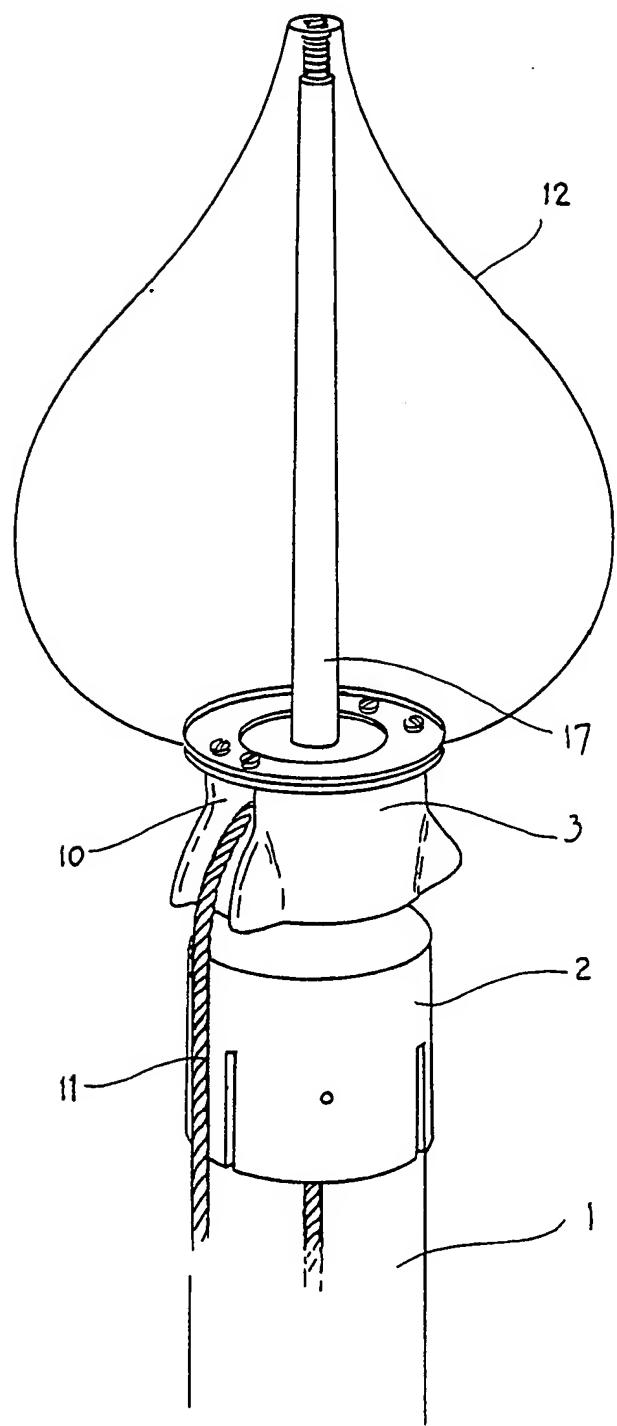


FIG. 2

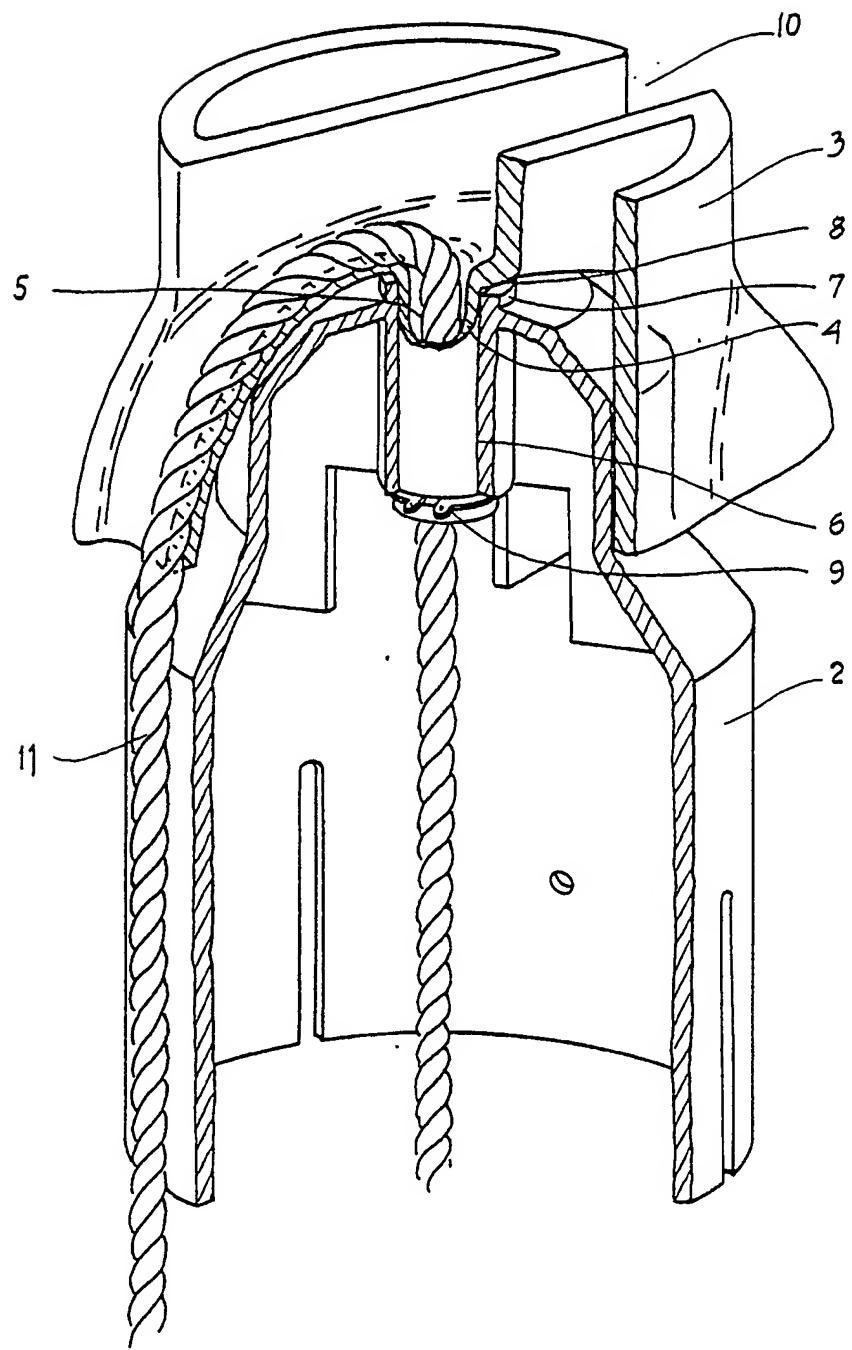
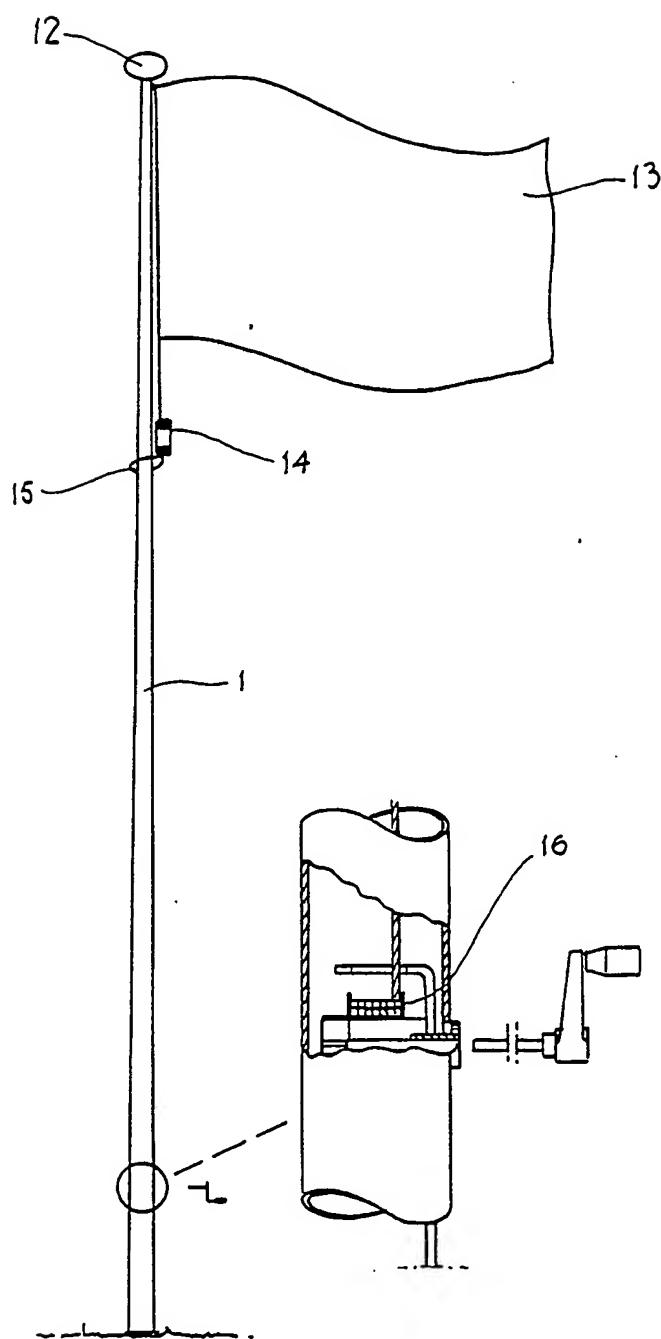


FIG. 3



INTERNATIONAL SEARCH REPORT

International Application No. PCT/SE86/00330

I. CLASSIFICATION OF SUBJECT MATTER (If several classification symbols apply, indicate all) *

According to International Patent Classification (IPC) or to both National Classification and IPC 4

G 09 F 17/00

II. FIELDS SEARCHED

Minimum Documentation Searched 7

Classification System	Classification Symbols
IPC 4	E 04 H 12/00, /18, /32; G 09 F 17/00
Nat Cl	74d: 10/02
US Cl	116: 173-175

Documentation Searched other than Minimum Documentation
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SE, NO, DK, FI classes as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT*

Category *	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	SE, B, 394 531 (J R ZETTERDAHL) 27 June 1977 see especially figure 2	1-4
A	US, A, 2 507 623 (B D DIAZ) 16 May 1950	
A	US, A, 2 440 500 (R ELLIS) 27 April 1948	
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IV. CERTIFICATION

Date of the Actual Completion of the International Search

1986-10-06

Date of Mailing of this International Search Report

1986-10-07

International Searching Authority

Swedish Patent Office

Signature of Authorized Officer

Rune Larsson
Rune Larsson